ABSTRACT OF THE DISCLOSURE

A method for determining the position of an element driven by the drive shaft of a commutated direct current (DC) motor includes counting current ripples detected in an armature current signal as the motor rotatably drives the shaft. A frequency spectral analysis of the armature current signal is performed to determine frequency components of the armature current signal. The frequency components are analyzed to determine which of the frequency components is indicative of the current ripple frequency. The current ripple frequency is monitored for changes over time while the motor drives the shaft. The number of counted ripples is modified upon a change in the current ripple frequency in a time interval if the current ripple frequency change deviates from the current ripple frequency more than a threshold deviation for the time interval. The rotational position of the shaft is determined based on the modified number of counted ripples.